Efect of temperature increasing on Nanofluid structure.

Abstract

Nanofluids which are known as new generation of thermal fluids have particular features which were affected on their behavior. One of these features is response of nanofluids to temperature changes. Ultrasonic mixer is used to prepare the nanofluid. Ultrasonic mixer sends out waves and the wave itself makes the heat. Numbers of encounters between nanoparticles also are increased by increasing the temperature. These collapses may lead to agglomeration or recrystallization of nanoparticles. In this work, the attempted made to study structural changes of nanofluid as increasing the temperature which is very important for engineering designs. Obtained results for nanofluids were illustrated that the temperature in nanofluid was increased in lower ranges than pure water. Water-copper oxide and also water-alumina nanofluids were used.

Keyword: Nanofluids; Temperature increasing.